

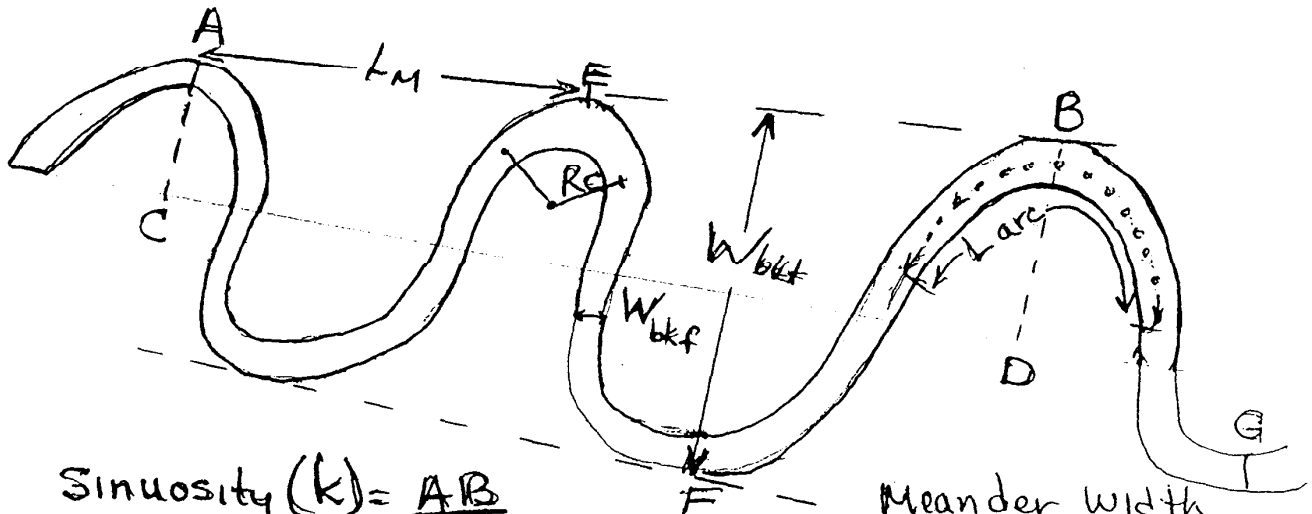
Pattern

From aerial photos or from field survey obtain the following information:

- 1). Meander wavelength (L_m) Obtain minimum maximum and average values.
- 2). Ratio of meander wavelength to bankfull width (L_m / W_{bkf}).
- 3). Radius of curvature (R_c) Obtain for minimum, maximum and average values.

Besides measuring on aerial photo or in field, another technique for field measurement is the Chord length/mid-ordinate method (see sketch) where $R_c = C^2/8M + M/2$

- 4). Meander width ratio (belt width/ bankfull width, or lateral containment) (W_{blt}/W_{bkf})
Measure minimum, maximum and average meander width ratios.
- 5). Sinuosity (Stream length/ Valley distance, or valley slope/ channel slope).
- 6). Arc length (L_{arc}).



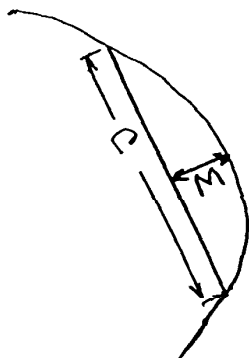
$$\text{Sinuosity } (k) = \frac{AB}{CD}$$

$$\text{Meander Length } (L_m) = AE$$

Plan view
(Pattern)

$$\text{Meander width Ratio} = (W_{blt}) / (W_{bkf})$$

$$\begin{aligned} L_{arc} \text{ or (Bend length)} \\ &= \frac{1}{2} \text{ Stream length FG} \\ &\text{or } \frac{1}{2} (\text{Sinuosity} \times L_m) \end{aligned}$$



$$R_c = \frac{C^2}{8M} + \frac{M}{2}$$